ds

```
Set     Items   Description
S1       6235   DIFFERENTIAT? (5N)CHONDROCYTE??
S2    3478132   POLYNUCLEOTIDE OR DNA OR NUCLEIC OR MRNA OR RNA
S3       2642   S1 AND S2
S4   11519443   EXPRESS? OR PRESENT OR FOUND OR DETECT?
S5       2453   S3 AND S4
S6    3856650   SPECIFIC?
S7       1255   S5 AND S6
S8        214   S7 AND PY<=1997
? s marker??
      S9  845504  MARKER??
? s s3 and s9
           2642  S3
         845504  S9
     S10     405  S3 AND S9
? rd

>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.
     S11     239  RD  (unique items)
? s s11 and s6
            239  S11
        3856650  S6
     S12     109  S11 AND S6
? s review
     S13 1160749  REVIEW
? s s12 and s13
            109  S12
        1160749  S13
     S14       1  S12 AND S13
? t s14/3,k,ab/1
```

14/3,K,AB/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

13438583 PMID: 11680687

The role of ERG (ets related gene) in cartilage development.

Iwamoto M; Higuchi Y; Enomoto-Iwamoto M; Kurisu K; Koyama E; Yeh H; Rosenbloom J; Pacifici M

Department of Oral Anatomy and Developmental Biology, Osaka University Faculty of Dentistry, Osaka, Japan. mal@dent.osaka-u.ac.jp

Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society (England) 2001, 9 Suppl A pS41-7, ISSN 1063-4584--Print
Journal Code: 9305697
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

OBJECTIVE: Based on function and developmental fate, cartilage tissue can be broadly classified into two types: transient (embryonic or growth-plate) cartilage and permanent cartilage. **Chondrocytes** in transient cartilage undergo terminal **differentiation** into hypertrophic cells, induce cartilage-matrix mineralization, and eventually disappear and are replaced by bone. On the other hand, **c**hondrocytes in permanent cartilage do not

differentiate further, do not become hypertrophic, and persist throughout life at **specific** sites, including joints and tracheal rings. While many studies have described differences in structure, matrix composition and biological characteristics between permanent and transient cartilage, it is poorly understood how the fates of permanent and transient cartilage are determined. Previous studies demonstrated that chondrocytes isolated from permanent cartilage have the potential to express **markers** of the mature hypertrophic phenotype once grown in culture, suggesting that cell hypertrophy is an intrinsic property of all chondrocytes and must be actively silenced in permanent cartilage in vivo. These silencing mechanisms, however, are largely unknown. In this paper, we first **review** nature of chondrocytes in transient and permanent cartilages and then report the cloning and characterization of a novel variant of ets transcription factor chERG, hereafter called C-1-1, which might be involved in regulation of permanent cartilage development. DESIGN: For cloning of a novel variant of chERG (C-1-1), we isolated **RNA** from the cartilaginous femur or tibiotarsus of Day 17 chick embryos and processed it for reverse transcription-polymerase chain reaction (RT-PCR) with the primers from sequences upstream and downstream of the 81 and 72 bp segments alternatively-spliced in mammals. For investigation of function of chERG and C-1-1, we over-expressed chERG or C-1-1 in cultured chick chondrocytes or the developing limb of chick embryo using a retrovirus (RCAS) system, and examined the phenotype changes in the infected chondrocytes or the infected limb elements. RESULTS: C-1-1 is an alternative and novel variant lacking the 27 amino acids segment of chERG that has been reported previously. C-1-1 is preferentially expressed in developing articular cartilage, whereas chERG is preferentially expressed in growth plate cartilage. Growth of articular chondrocytes in culture was accompanied by decreasing C-1-1 expression after several passages, while expression of hypertrophic **markers** increased. Expression of C-1-1 in cultured chondrocytes inhibited cell hypertrophy, alkaline phosphatase activity, and cartilage matrix mineralization. In contrast, over-expression of chERG promoted chondrocyte maturation and mineralization. CONCLUSION: Our data demonstrate for the first time that chERG and C-1-1 play distinct roles in skeletogenesis and may have crucial roles in the development and function of transient and permanent cartilages.

... be broadly classified into two types: transient (embryonic or growth-plate) cartilage and permanent cartilage. **Chondrocytes** in transient cartilage undergo terminal **differentiation** into hypertrophic cells, induce cartilage-matrix mineralization, and eventually disappear and are replaced by bone. On the other hand, **chondrocytes** in permanent cartilage do not **differentiate** further, do not become hypertrophic, and persist throughout life at **specific** sites, including joints and tracheal rings. While many studies have described differences in structure, matrix ...

... determined. Previous studies demonstrated that chondrocytes isolated from permanent cartilage have the potential to express **markers** of the mature hypertrophic phenotype once grown in culture, suggesting that cell hypertrophy is an...

... cartilage in vivo. These silencing mechanisms, however, are largely unknown. In this paper, we first **review** nature of chondrocytes in transient and permanent cartilages and then report the cloning and characterization...

...development. DESIGN: For cloning of a novel variant of chERG (C-1-1), we

isolated **RNA** from the cartilaginous femur or tibiotarsus of Day 17 chick embryos and processed it for...

... was accompanied by decreasing C-1-1 expression after several passages, while expression of hypertrophic **markers** increased. Expression of C-1-1 in cultured chondrocytes inhibited cell hypertrophy, alkaline phosphatase activity...

; Animals; Cell **Differentiation** ; Cells, Cultured; Chick Embryo; **Chondrocytes** --cytology--CY; Phenotype; Reverse Transcriptase Polymerase Chain Reaction; Trans-Activation (Genetics)
?

Expression of cartilage- specific **molecules is retained on long-term culture of human articular chondrocytes.**

Kolettas E; Buluwela L; Bayliss M T; Muir H I
Department of Biochemistry, Charing Cross and Westminster Medical School, University of London, UK.

Journal of cell science (ENGLAND) May 1995, 108 (Pt 5) p1991-9,
ISSN 0021-9533--Print Journal Code: 0052457
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Normal human adult articular chondrocytes were used to determine how the chondrocyte phenotype is modulated by culture conditions following long-term culture. We report here for the first time that human articular chondrocytes have a lifespan in the range of 34-37 population doublings. While chondrocytes cultured as monolayers displayed a fibroblastoid morphology and grew faster, those cultured as suspensions over agarose adopted a round morphology and formed clusters of cells reminiscent of chondrocyte differentiation in intact cartilage, with little or no **DNA** synthesis. These morphologies were independent of the age of the culture. Despite, these morphological differences, however, chondrocytes expressed **markers** at **mRNA** and protein levels characteristic of cartilage: namely, types II and IX collagens and the large aggregating proteoglycans, aggrecan, versican and link protein, but not syndecan, under both culture conditions. However, they also expressed type I collagen alpha 1(I) and alpha 2(I) chains. It has been suggested that expression of collagen alpha 1(I) by chondrocytes cultured as monolayers is a **marker** of the loss of the chondrocyte phenotype. However, we show here, using reverse transcriptase/polymerase chain reaction, that normal fresh intact human articular cartilage expresses collagen alpha 1(I). The data show that following long-term culture human articular **chondrocytes** retain their **differentiated** characteristics and that cell shape does not correlate with the expression of the chondrocyte phenotype. It is proposed that loss of the chondrocyte phenotype is marked by the loss of one or more cartilage- **specific** molecules rather than by the appearance of non-cartilage- **specific** molecules.

Expression of cartilage- specific **molecules is retained on long-term culture of human articular chondrocytes.**

...formed clusters of cells reminiscent of chondrocyte differentiation in intact cartilage, with little or no **DNA** synthesis. These morphologies were independent of the age of the culture. Despite, these morphological differences, however, chondrocytes expressed **markers** at **mRNA** and protein levels characteristic of cartilage: namely, types II and IX collagens and the large...

... suggested that expression of collagen alpha 1(I) by chondrocytes cultured as monolayers is a **marker** of the loss of the chondrocyte phenotype. However, we show here, using reverse transcriptase/polymerase...

... expresses collagen alpha 1(I). The data show that following long-term culture human articular **chondrocytes** retain their **differentiated** characteristics and that cell shape does not correlate with the expression of the chondrocyte phenotype...

... loss of the chondrocyte phenotype is marked by the loss of one or more cartilage- **specific** molecules rather than by the appearance of

non-cartilage- **specific** molecules.
; Adult; Base Sequence; Biological **Markers** ; Cartilage, Articular --cytology--CY; Cell Differentiation; Cell Division; Cells, Cultured; Child ; Collagen--genetics--GE; Gene Expression; Humans; Molecular Sequence Data; Phenotype; Proteins--genetics--GE; Proteoglycans--genetics--GE; **RNA** , Messenger--biosynthesis--BI; Research Support, Non-U.S. Gov't
Chemical Name: Biological **Markers** ; Extracellular Matrix Proteins; Proteins; Proteoglycans; **RNA** , Messenger; link protein; Collagen

21/3,K,AB/16 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08598444 PMID: 2224589
Effects of tumor necrosis factor alpha on proliferation and expression of differentiated **phenotypes in rabbit costal** chondrocytes **in culture.**
Enomoto M; Pan H O; Kinoshita A; Yutani Y; Suzuki F; Takigawa M
Department of Biochemistry and Calcified-Tissue Metabolism, Faculty of Dentistry, Osaka University, Japan.
Calcified tissue international (UNITED STATES) Sep 1990, 47 (3) p145-51, ISSN 0171-967X--Print Journal Code: 7905481
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Tumor necrosis factor alpha (TNF alpha) decreased the synthesis of glycosaminoglycan (GAG) in rabbit costal chondrocytes in culture, but did not stimulate the release of GAG from cell layers. Like chondrocytes cultured in control medium, chondrocytes cultured in the presence of TNF alpha produced putative "cartilage- **specific** " proteoglycans identified by density gradient centrifugation under dissociative conditions. Although TNF alpha decreased the synthesis of the proteoglycans, it did not change their monomeric size, which is a **marker** of cartilage phenotypes. Moreover, TNF alpha did not affect the responsiveness to parathyroid hormone, insulin-like growth factor I, or transforming

THE STRUCTURE OF THE RAT AGGRECAN GENE AND PRELIMINARY CHARACTERIZATION OF ITS PROMOTOR (Abstract Available)

Author(s): DOEGE KJ; GARRISON K; COULTER SN; YAMADA Y
Corporate Source: OREGON HLTH SCI UNIV,SHRINERS HOSP CRIPPLED CHILDREN,RES UNIT,3101 SW SAM JACKSON PK RD/PORTLAND//OR/97201; OREGON HLTH SCI UNIV,DEPT BIOCHEM & MOLEC BIOL/PORTLAND//OR/97201; OREGON HLTH SCI UNIV,DEPT CELL BIOL & ANAT/PORTLAND//OR/97201; NIDR,DEV BIOL LAB/BETHESDA//MD/20892
Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1994, V269, N46 (NOV 18), P 29232-29240
ISSN: 0021-9258
Language: ENGLISH Document Type: ARTICLE
Abstract: Aggrecan is a major structural component of cartilage extracellular matrix and a **specific** gene product of **differentiated chondrocytes** , cDNA clones have been used to isolate rat aggrecan genomic clones from phage and cosmid libraries, producing over 80 kilobases (kb) of overlapping **DNA** containing the complete rat aggrecan gene, including 12 kb of 5'- and 8 kb of 3'-flanking **DNA** . **DNA** sequencing shows 18 exons, most of which encode structural or functional modules; exceptions are do mains G1-B and G2-B, which are split into two exons and the G3 lectin domain, which is encoded by three exons. There is one expressed epidermal growth factor-like exon and in addition a non-expressed ''pseudo-exon'' encoding a heavily mutated epidermal growth factor-like domain. Intron sizes have been determined by restriction mapping and inter exon polymerase chain reaction; a 30-kb intron separates exons 1 and 2. Exon 1 has been mapped by primer extension and S1 nuclease protection; it encodes 381 base pairs (bp) of 5'-untranslated sequence. There is a minor promoter which initiates transcription an additional 68 bp 5' of the major promoter start site. **DNA** sequence is reported for a 529-bp fragment encompassing exon 1, including 120 bp of 5'-flanking **DNA** comprising the promoter. This promoter is lacking the TATAA or CCAAT elements but has several putative binding sites for transcription factors. A 922-bp **DNA** fragment with 640-bp 5'-flanking **DNA** and 282-bp exon 1 sequence showed higher promoter activity in transfected chondrocytes than in fibroblasts, is completely inactive in the reverse orientation, and is strongly enhanceable in the forward direction by the SV40 enhancer.

Abstract: Aggrecan is a major structural component of cartilage extracellular matrix and a **specific** gene product of **differentiated chondrocytes** , cDNA clones have been used to isolate rat aggrecan genomic clones from phage and cosmid libraries, producing over 80 kilobases (kb) of overlapping **DNA** containing the complete rat aggrecan gene, including 12 kb of 5'- and 8 kb of 3'-flanking **DNA** . **DNA** sequencing shows 18 exons, most of which encode structural or functional modules; exceptions are do...

...promoter which initiates transcription an additional 68 bp 5' of the major promoter start site. **DNA** sequence is reported for a 529-bp fragment encompassing exon 1, including 120 bp of 5'-flanking **DNA** comprising the promoter. This promoter is lacking the TATAA or CCAAT elements but has several putative binding sites for transcription factors. A 922-bp **DNA** fragment with 640-bp 5'-flanking **DNA** and 282-bp exon 1 sequence showed higher promoter activity in transfected chondrocytes than in...

...Identifiers--CORE PROTEIN; CHONDROITIN SULFATE PROTEOGLYCAN; BOVINE CARTILAGE PROTEOGLYCAN; LINK PROTEIN; SEQUENCE-ANALYSIS; ADHESION RECEPTORS; MESSENGER- **RNA** ; CHICK-EMBRYO; PARTIAL CDNA; CLONING

...Research Fronts: EXPRESSION)
92-1463 002 (LARGE AGGREGATING PROTEOGLYCAN; INTERGLOBULAR DOMAIN OF CARTILAGE AGGRECAN; KERATAN SULFATE; SERUM **MARKERS** ; EXPERIMENTAL CANINE OSTEOARTHRITIS)
92-0022 001 (REL NF-KAPPA-B TRANSCRIPTION FACTORS; **DNA** -BINDING ACTIVITY; NUCLEAR EXPRESSION; HIV-1 PROMOTER)
92-0741 001 (ADHESION MOLECULES; REGULATION OF THE...

21/3,K,AB/19 (Item 1 from file: 340)

Dialog Acc No: 10277754 IFI Acc No: 2003-0022157
IFI Publication Control No: 2003-0022157 IFI Chemical Acc No: 2003-0005554
Document Type: C
METHODS OF PRODUCING A LIBRARY AND METHODS OF SELECTING POLYNUCLEOTIDES OF INTEREST; DETECTION OF PREFERENTIAL NUCLEOTIDE SEQUENCES; OBTAIN CELLS, TRANSFORM WITH LIBRARY, CULTURE, RECOVER INSERTED NUCLEOTIDE SEQUENCES
Inventors: Smith Ernest S (US); Zauderer Maurice (US)
Assignee: Rochester, University of
Assignee Code: 72104
Attorney, Agent or Firm: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600 WASHINGTON, DC, 20005-3934, US
Publication (No,Kind,Date), Applic (No,Date):
US 20030022157 A1 20030130 US 2001818991 20010328
Priority Applic(No,Date): US 2001818991 20010328
Provisional Applic(No,Date): US 60-192586 20000328; US 60-203343 20000510; US 60-263226 20010123; US 60-271426 20010227

Abstract: The present invention relates to a high efficiency method of introducing **DNA** into linear **DNA** viruses such as poxvirus, a method of producing libraries in linear **DNA** viruses such as poxvirus, and methods of selecting polynucleotides of interest based on cell nonviability or other phenotypes.

Abstract: The present invention relates to a high efficiency method of introducing **DNA** into linear **DNA** viruses such as poxvirus, a method of producing libraries in linear **DNA** viruses such as poxvirus, and methods of selecting polynucleotides of interest based on cell nonviability...

Exemplary Claim:

D R A W I N G

1. A method of selecting a target **polynucleotide** , comprising: (a) introducing into a population of host cells a library of insert polynucleotides; wherein at least one of said insert polynucleotides comprises the target **polynucleotide**

Progression and recapitulation of the chondrocyte differentiation program: cartilage matrix protein is a marker **for cartilage maturation.**

Chen Q; Johnson D M; Haudenschild D R; Goetinck P F

Cutaneous Biology Research Center, Massachusetts General Hospital, Charlestown 02129, USA.

Developmental biology (UNITED STATES) Nov 1995, 172 (1) p293-306, ISSN 0012-1606--Print Journal Code: 0372762

Contract/Grant No.: HD 22016; HD; NICHD

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

During endochondral bone formation, chondrocytes in the cartilaginous anlage of long bones progress through a spatially and temporally regulated differentiation program before being replaced by bone. To understand this process, we have characterized the differentiation program and analyzed the relationship between chondrocytes and their extracellular environment in the regulation of the program. Our results indicate that, within an epiphyseal growth plate, the zone of proliferating chondrocytes is not contiguous with the zone of hypertrophic chondrocytes identified by the transcription of the type X collagen gene. We find that the postproliferative chondrocytes which make up the zone between the zones of proliferation and hypertrophy **specifically** transcribe the gene for cartilage matrix protein (CMP). This zone has been termed the zone of maturation. The identification of this unique population of chondrocytes demonstrates that the chondrocyte differentiation program consists of at least three stages. CMP translation products are present in the matrix surrounding the nonproliferative chondrocytes of both the zones of maturation and hypertrophy. Thus, CMP is a **marker** for postmitotic chondrocytes. As a result of the changes in gene expression during the differentiation program, chondrocytes in each zone reside in an

Type II transglutaminase expression in rabbit articular chondrocytes in culture: relation with cell differentiation, cell growth, cell adhesion and cell apoptosis.

Borge L; Demignot S; Adolphe M

Laboratoire de Pharmacologie Cellulaire de I'Ecole Pratique des Hautes Etudes, Centre de Recherches Biomedicales des Cordeliers, Paris, France.

Biochimica et biophysica acta (NETHERLANDS) Jun 13 1996, 1312 (2) p117-24, ISSN 0006-3002--Print Journal Code: 0217513

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Depending on the cell type studied, the involvement of type II transglutaminase (TGase) has been proposed in almost any event of the cell life such as differentiation, apoptosis, growth, aging, cell morphology and adhesion, metastatic capacity or extracellular matrix stabilization. In order to define the field(s) where this enzyme may be implicated in chondrocytes, type II TGase expression was studied in **chondrocytes** at different passages which **differentiated** state was modulated by retinoic acid, dihydrocytochalasin B or staurosporin. Results showed that (i) type II TGase expression is not incompatible with type II collagen expression, a main **marker** of chondrocyte differentiation (ii) type II TGase expression is higher when cells are in the exponential phase of growth than when growth arrested (iii) a high type II TGase expression does not imply that

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 ds

Set     Items   Description
S1       6235   DIFFERENTIAT? (5N)CHONDROCYTE??
S2    3478132   POLYNUCLEOTIDE OR DNA OR NUCLEIC OR MRNA OR RNA
S3       2642   S1 AND S2
S4   11519443   EXPRESS? OR PRESENT OR FOUND OR DETECT?
S5       2453   S3 AND S4
S6    3856650   SPECIFIC?
S7       1255   S5 AND S6
S8        214   S7 AND PY<=1997
S9     845504   MARKER??
S10       405   S3 AND S9
S11       239   RD  (unique items)
S12       109   S11 AND S6
S13   1160749   REVIEW
S14         1   S12 AND S13
? s s s12 and s6
                0  S S12
          3856650  S6
     S15        0  S S12 AND S6
? s s12 and s6
              109  S12
          3856650  S6
     S16      109  S12 AND S6
? s differentiated (5n)chondrocyte??
           192749  DIFFERENTIATED
            39288  CHONDROCYTE??
     S17     1118  DIFFERENTIATED (5N)CHONDROCYTE??
? s s9 and s17
           845504  S9
             1118  S17
     S18      173  S9 AND S17
? s s18 and s2
Processing
              173  S18
          3478132  S2
     S19       72  S18 AND S2
? s s19 and s6
               72  S19
          3856650  S6
     S20       35  S19 AND S6
? rd

>>>Duplicate detection is not support
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Set     Items   Description
S1         62   DECAMER?? OR NONAMER??
S2     356886   MIXTURE
S3         23   S1 AND S2
S4         22   S1 AND PY<=1997
S5         12   S2 AND S4
? s oligonucleotide
      S6   13685  OLIGONUCLEOTIDE
? s s4 and s6
              22  S4
           13685  S6
      S7       3  S4 AND S6
? t s7/3,k,ab/1-3

 7/3,K,AB/1
DIALOG(R)File 340:CLAIMS(R)/US Patent
(c) 2006 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 2596112  IFI Acc No: 9509680
IFI Publication Control No: 9509680
Document Type: C
METHOD FOR HIGH-VOLUME SEQUENCING OF NUCLEIC ACIDS: RANDOM AND DIRECTED
PRIMING WITH LIBRARIES OF OLIGONUCLEOTIDES; INCUBATING MIXTURE CONTAINING
NUCLEIC ACID(WHICH HAS BEEN PRETREATED TO CONTAIN PREFERRED END GROUP) WITH
POLYMERIZING ENZYME, THEN ANALYSIS
Inventors: Studier F William (US)
Assignee: Associated Universities Inc
Assignee Code: 18553
Document Type: REASSIGNED
Attorney, Agent or Firm: Bogosian, Margaret C
Publication (No,Kind,Date), Applic (No,Date):
US 5407799     A   19950418  US 93135317    19931012
Calculated Expiration: 20120418
   (Cited in 011 later patents)  Document Type: EXPIRED
Priority Applic(No,Date): US 93135317     19931012; US 91779290
19911018; US 89407238     19890914

Abstract: Random and directed priming methods for determining nucleotide
sequences by enzymatic sequencing techniques, using libraries of primers of
lengths 8, 9 or 10 bases, are disclosed. These methods permit direct
sequencing of nucleic acids as large as 45,000 base pairs or larger without
the necessity for subcloning. Individual primers are used repeatedly to
prime sequence reactions in many different nucleic acid molecules.
Libraries containing as few as 10,000 octamers, 14,200  nonamers , or
44,000  decamers  would have the capacity to determine the sequence of
almost any cosmid DNA. Random priming with a fixed set of primers from a
smaller library can also be used to initiate the sequencing of individual
nucleic acid molecules, with the sequence being completed by directed
priming with primers from the library. In contrast to random cloning
techniques, a combined random and directed priming strategy is far more
efficient.


Publication (No,Kind,Date), Applic (No,Date):
... 19950418

Abstract: ...many different nucleic acid molecules. Libraries containing as
```

few as 10,000 octamers, 14,200 **nonamers** , or 44,000 **decamers** would have the capacity to determine the sequence of almost any cosmid DNA. Random priming...
Non-exemplary Claims:
...5. The method of claim 1 wherein the primer is an **oligonucleotide** 6, 7, 8, 9 or 10 bases long...

...1 wherein the primer is selected from a primer library comprised of hexamers, heptamers, octamers, **nonamers** , **decamers** and primer combinations thereof...

...The method of claim 9 wherein the primer library is comprised of hexamers, heptamers, octamers, **nonamers** , **decam**ers and primer combinations thereof...The method of claim 13 wherein the primer library is comprised of hexamers, heptamers, octamers, **nonamers** , **decamers** and primer combinations thereof...

7/3,K,AB/2
DIALOG(R)File 340:CLAIMS(R)/US Patent

Dialog Acc No: 2254235 IFI Acc No: 9213078
IFI Publication Control No: 9213078
Document Type: C
PROCESS FOR DNA SEQUENCING USING OLIGONUCLEOTIDE **BANK**
Inventors: Blocker Helmut (DE)
Assignee: Gesellschaft fur Biotechnologische Forschung MbH (Gbf) DE
Assignee Code: 01399
Attorney, Agent or Firm: Kane, Dalsimer, Sullivan, Kurucz, Levy, Eisele and Richard
Publication (No,Kind,Date), Applic (No,Date):
US 5114839 A **19920519** US 90457815 19900111
Calculated Expiration: 20090524
(Cited in 016 later patents) **Document Type: EXPIRED**
Internat. Convention Pub(No,Date),Applic(No,Date): WO 8911211
19891130 WO 89EP579 19890524
Section 371: 19900111
Section 102(e):19900111
Priority Applic(No,Date): DE 3817591 19880524

Abstract: PCT No. PCT/EP89/00579 Sec. 371 Date Jan. 11, 1990 Sec. 102(e) Date Jan. 11, 1990 PCT Filed May 24, 1989 PCT Pub. No. WO89/11211 PCT Pub. Date Nov. 30, 1989. A process for DNA sequencing by the multi-primer method involving the use of **oligonucleotide** banks of hexamers, heptamers, octomers, or **nonamers** for the creation of the primer through the ligation of two or more oligomers following hybridization onto the primer site.

PROCESS FOR DNA SEQUENCING USING OLIGONUCLEOTIDE **BANK**
Publication (No,Kind,Date), Applic (No,Date):
... **19920519**
...Internat. Convention Pub(No,Date),Applic(No,Date): **19891130**

Abstract: ...1989. A process for DNA sequencing by the multi-primer method involving the use of **oligonucleotide** banks of hexamers, heptamers, octomers, or **nonamers** for the creation of the primer through the ligation of two or more oligomers following...

Exemplary Claim:
...primer-attachment site two oligonucleotides selected from the group consisting of hexameric, heptameric, octameric and **nonameric** oligonucleotides obtained from a bank comprising all possible 46, 47, 48 an d49 different oligonucleotides...

...hybridizing simultaneously with step (b) or after step (b) a further hexameric, heptameric, octameric or **nonameric** **oligonucle**otide immediately adjacent to one of the other two oligonucleotides at the primer-attachment site, (d...
Non-exemplary Claims:
...phosphorylated at their 5' end when that end is to be ligated with an adjacent **oligonucleotide** with the aid of T4-DNA ligase.

7/3,K,AB/3
DIALOG(R)File 340:CLAIMS(R)/US Patent

Dialog Acc No: 1754109 IFI Acc No: 8705157
IFI Publication Control No: 8705157
Document Type: C
INHIBITION OF PLANT VIRUSES WITH OLIGONUCLEOTIDES; OLIGONUCLEOTIDE **OF PURINE AGLYCONE LINKED BY 2',5' -PHOSPHODIESTER BOND**
Inventors: DEVASH YAIR (US)
Assignee: UNASSIGNED OR ASSIGNED TO INDIVIDUAL
Assignee Code: 68000
Attorney, Agent or Firm: Caesar, Rivise, Bernstein, Cohen & Pokotilow, Ltd
Publication (No,Kind,Date), Applic (No,Date):
US 4654326 A **19870331** US 84630058 19840712
Calculated Expiration: 20040712
(Cited in 002 later patents) **Document Type: EXPIRED**
Priority Applic(No,Date): US 84630058 19840712

Abstract: Viral diseases in plant parts, such as leaves are inhibited by applying to the plants an effective amount of an agent comprising 2', 5'- **oligonucleotide** , such as 2, 5-A, linked in 2', 5'phosphodiester bond. The agent is provided in a vehicle such as a liquid or a powder, and is present in the vehicle in an effective amount at a concentration less than 1 X 10-8 M.

... OLIGONUCLEOTIDE **OF PURINE AGLYCONE LINKED BY 2',5' -PHOSPHODIESTER BOND**
Publication (No,Kind,Date), Applic (No,Date):
... **19870331**

Abstract: ...inhibited by applying to the plants an effective amount of an agent comprising 2', 5'- **oligonucleotide** , such as 2, 5-A, linked in 2', 5'phosphodiester bond. The agent is provided...

Exemplary Claim:
...COMPRISING APPLYING TO A PART OF SAID PLANTS AN EFFECTIVE AMOUNT OF A DIMERIC TO **DECAMERIC** **OLIGONUCLEOTIDE** OF PURINE AGLYCONES, SAID **OLIGONUCLEOTIDE** BEING LINKED IN A 2',5'PHOSPHODIESTER BOND, SAID **OLIGONUCLEOTIDE** BEING PROVIDED IN AN INERT VEHICLE, SAID **OLIGONUCLEOTIDE** BEING APPLIED TO SAID PLANT PART WITHOUT A

COPRECIPITANT, IN AN AMOUNT NOT LESS THAN...
Non-exemplary Claims:
...claim 2 wherein said active agent is selected from the group consisting of 2',5'- **oligonucleotide** with 5' external phosphate moiety...

...claim 2 wherein said active agent is selected from the group consisting of 2',5'- **oligonucleotide** without 5' external phosphate moiety...
?